CLAIMS

What is claimed is:

1. A spectacle system for providing visual field shifting for a person wearing a spectacle frame having a carrier lens, the eyes of the person defining a horizontal visual meridian, the spectacle system comprising:

a carrier lens having a central viewing area and a peripheral viewing area above and below said central viewing area;

an image-shifting device disposed in said peripheral viewing area of said carrier lens, said image-shifting device including a plurality of image-shifting elements, each of said plurality of image-shifting elements being oriented such that an optical axis of each of the plurality of image-shifting elements forms an angle between 10° and 60° relative to the horizontal visual meridian.

2. The spectacle system of claim 1 wherein said image-shifting device is an upper image-shifting device disposed in the peripheral viewing area above the central viewing area, and wherein said upper image-shifting device provides a lateral and upward shift of a perceived image.

3. The spectacle system of claim 1 wherein said image-shifting device is a lower image-shifting device disposed in the peripheral viewing area below the central viewing area, and wherein the lower image-shifting device provides a lateral and downward shift of a perceived image.

4. The spectacle system of claim 1 wherein said image-shifting device includes upper and lower image-shifting devices disposed in the peripheral viewing area above and below the central viewing area respectively, and wherein the upper image-shifting device provides a lateral and upward shift in perceived image and the

lower image-shifting device provides a lateral and downward shift in perceived image.

5. The spectacle system of claim 1 wherein said plurality of image-shifting elements are prisms and wherein said plurality of image-shifting prisms are arranged in a side by side juxtaposed arrangement on said carrier lens, forming a Fresnel-like image-shifting device.

6. The spectacle system of claim 1 wherein said plurality of image-shifting elements are image-shifting mirrors pairs and wherein said plurality of image-shifting mirrors pairs are arranged in a side by side juxtaposed arrangement on said carrier lens, forming a Fresnel-like image-shifting device.

7. The spectacle system of claim 6 wherein each of the image-shifting mirrors pairs includes a first reflecting surface and a second reflecting surface, each said reflecting surface facing toward the other and oriented to the other so as cause a predetermined angle of deviation of light.

8. The spectacle system of claim 1, wherein said spectacle frame is a binocular frame.

9. The spectacle system of claim 1, wherein said spectacle frame is a monocular frame.

10. A spectacle system for providing visual field shifting for a person wearing a spectacle frame having first and second carrier lenses, the eyes of the person defining a horizontal visual meridian, the spectacle system comprising:

a first and a second carrier lens, each said lens having a central viewing area and a peripheral viewing area above and below said central viewing area;

a first and a second image-shifting device disposed in said peripheral viewing area of said first and/or second carrier lenses respectively, said first and second image-shifting devices including first and second pluralities of image-shifting elements respectively, each of said first and second plurality of image-shifting elements oriented such that an optical axis of each of the plurality of image-shifting elements forms an angle between 10° and 60° relative to the horizontal meridian.

11. The spectacle system of claim 10 wherein said first image-shifting device includes first upper and first lower image-shifting devices disposed in the peripheral viewing area above and below the central viewing area of the first and/or second carrier lens respectively, and wherein said first upper image-shifting device provides a lateral and upward shift of a perceived image and said first lower image-shifting device provides a lateral and downward shift of a perceived image.

12. The spectacle system of claim 11 wherein said second image-shifting device includes second upper and second lower image-shifting devices disposed in the peripheral viewing area above and below the central viewing area of the second carrier lens respectively, and wherein said second upper image-shifting device provides a lateral and upward shift in perceived image and said second lower image-shifting device provides a lateral and downward shift in perceived image.

13. The spectacle system of claim 10 wherein said first and second pluralities of image-shifting elements are prisms and wherein said first and second pluralities of image-shifting prisms

are arranged in a side by side juxtaposed arrangement on said first and/or second carrier lens respectively, forming a Fresnel-like image-shifting device.

14. The spectacle system of claim 10 wherein said first and second pluralities of image-shifting elements are image-shifting mirrors pairs and wherein said first and second plurality of image-shifting mirrors pairs are arranged in a side by side juxtaposed arrangement on said first and/or second carrier lens respectively.

15. The spectacle system of claim 14 wherein each of the image-shifting mirrors pairs includes a first reflecting surface and a second reflecting surface, each said reflecting surface facing toward the other and oriented to the other so as to cause a predetermined angle of deviation of light.

16. A spectacle system for providing visual field shifting for a person wearing a spectacle frame having a carrier lens, the eyes of the person defining a horizontal visual meridian, the spectacle system comprising:

said carrier lens having a central viewing area and a peripheral viewing area above and below said central viewing area;

an image-shifting mirror disposed in said peripheral viewing area of said carrier lens, said image-shifting mirror including a plurality of image-shifting mirror elements, each of said plurality of image-shifting mirror elements oriented such that a longitudinal axis of each of the plurality of image-shifting elements is substantially orthogonal to the horizontal visual meridian.